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COLLECTIONS OF FUNGI, BACTERIA, AND NEMATODES OF GRASSES

C. L. Lefebvre and H. W. Johnson

During the past several years a number of grass disease specimens have been collected by the writers and many others have been sent in by various individuals for identification. Some of the organisms and the diseases encountered have not previously been reported as occurring in the United States, while others are new collections from the States in which they were found. No attempt, however, is here made to indicate new hosts or whether the collections are new for a particular State or for the United States.

The specimens collected and received from different parts of the country differed greatly. From the eastern and southern States, where the climate usually is more humid, one or more leaf spots were commonly found on most of the grasses examined. The paucity of smuts and stem rust on grasses in the Southeast is very noticeable as compared with what one finds in the more central States and the far West (1, 2, 4, 5). Ergots of grasses, on the other hand, are widely distributed and rather common. The two species of ergot most commonly encountered are Claviceps paspali S. & H. on Dallis grass (Paspalum dilatatum Poir.) and several other species of Paspalum, and C. purpurea (Fr.) Tul. on many genera of grasses. C. paspali has been found abundantly each of the past four years from Virginia to Florida and west to Texas. Rootrots do not seem to cause the injury to grasses in the southeastern States that they do in some of the more western sections of the country (3, 5, 6).

The species of Dothichloë were determined by Dr. W. W. Diehl, Bureau of Plant Industry, U. S. Department of Agriculture, and the species of Phyllachora were determined by Dr. C. R. Orton, Agricultural Experiment Station of West Virginia University.

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3. Gordon, W. L., and Roderick Sprague. Species of Fusarium associated with root rots of the Gramineae in the Northern Great Plains. Plant Disease Reporter, 25:168-180. 1941.
4. Hardison, John R. Grass diseases in Michigan in 1940. Plant Disease Reporter, 25:120-125. 1941.
5. Sprague, Roderick. A preliminary check list of the parasitic fungi on cereals and other grasses in Oregon. Plant Disease Reporter, 19:156-186. 1935.
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(DIVISION OF FORAGE CROPS AND DISEASES, BUREAU OF PLANT INDUSTRY, WASHINGTON, D. C.).

COLLECTIONS OF FUNGI, BACTERIA, AND NEMATODES ON GRASSES

Latin Name	Common Name	Collector	Date	Locality
AGROPYRON CRISTATUM (L.) Gaertn.	CRESTED WHEATGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	7-23-38	Brookings, S. Dak.
Helminthosporium sativum Pam., King, & Bak.	Leafspot	C. L. Lefebvre	12-26-39	Beltsville, Md.
AGROPYRON DASYSTACHYUM (Hook.) Scribn.	THICKSPIKE WHEATGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
AGROPYRON INERME (Scrib. & Smith)Rydb.	BEARDLESS WHEATGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
AGROPYRON PUNGENS (Pers.) Roem. & Schult.				
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
AGROPYRON REPENS (L.) Beauv.	QUACKGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. W. Johnson	7-30-37	Madison, Wis.
Claviceps purpurea (Fr.) Tul.	Ergot	A. G. Johnson	8-9-38	Westby, Wis.
Claviceps purpurea (Fr.) Tul.	Ergot	A. G. Johnson	7-30-37	Painted Post, N.Y.
Claviceps purpurea (Fr.) Tul.	Ergot	A. G. Johnson	7-30-38	Santuit, Mass.
Claviceps purpurea (Fr.) Tul.	Ergot	A. G. Johnson	8-12-38	Hayfield, Minn.
Septoria agropyri Ell. & Ev.	Leaf spot	H. W. Johnson	7-30-37	Madison, Wis.
Urocystis agropyri (Preuss) Schroet.	Smut	G. D. Darker and C. L. Lefebvre	7-14-38	Waltham, Mass.
AGROPYRON SEMICOSTATUM (Steud.) Nees	DROOPING WHEATGRASS			
Ustilago bullata Berk.	Smut	C. L. Lefebvre	6-8-39	Lincoln, Nebr.
AGROPYRON SMITHII Rydb.	WESTERN WHEATGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	2-23-38	Brookings, S. Dak.

Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	8-4-38	Fargo, N.Dak.
Puccinia graminis Pers.	Stem rust	G. A. Rogler	1937	Mandan, N.Dak.
AGROPYRON TRACHYCAULUM (Link)Malte (A. PAUCIFLORUM (Schwein.) Hitchc.)	SLENDER WHEATGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	7-26-38	Brookings, S.Dak.
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
Puccinia graminis Pers.	Stem rust	G. A. Rogler	1937	Mandan, N. Dak.
AGROSTIS ALBA L.	REDTOP			
Ascochyta graminicola Sacc.		sent in	5-22-39	Larchmont, N.Y.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	7-10-39	Beltsville, Md.
Helminthosporium stenacrum Drechs.	Leaf spot	H. W. Johnson	4-29-39	Statesville, N.C.
Helminthosporium stenacrum Drechs.	Leaf spot	C. L. Lefebvre	7-1-40	Washington, D. C.
Puccinia coronata Cda.	Crown rust	C. L. Lefebvre	5-16-38	Gainesville, Fla.
Puccinia coronata Cda.	Crown rust	C. L. Lefebvre	5-22-38	Baton Rouge, La.
Puccinia coronata Cda.	Crown rust	H. W. Johnson	4-8-39	Quincy, Fla.
Puccinia coronata Cda.	Crown rust	H. W. Johnson	4-12-39	Experiment, Ga.
Ustilago striaeformis (West.) Niessl.	Smut	C. L. Lefebvre	10-9-40	Arlington Farm, Va.
AGROSTIS CANINA L.	VELVET BENT			
Ascochyta graminicola Sacc.		John Monteith, Jr.	4-11-40	West Newton, Mass.
Curvularia lunata (Wakker) Boedijn		T. Brooks	7-20-39	Arlington, Va.
Helminthosporium sp.		T. Brooks	7-11-39	Arlington, Va.
Typhula itoana Imai	Snow mold	J. Monteith, Jr.	4-11-40	West Newton, Mass.
Tilletia pallida G. W. Fischer	Smut	H. B. Sprague	10-18-40	Andover, N.J.
AGROSTIS GIGANTEA Roth	HAIRGRASS			
Puccinia coronata Cda.	Crown rust	C. L. Lefebvre	5-14-38	Statesville, N.C.
AGROSTIS PALUSTRIS Huds.	CREEPING BENT			
Curvularia lunata (Wakker) Boedijn		C. L. Lefebvre	7-20-39	Arlington, Va.
Helminthosporium sp.		T. Brooks	5-5-39	Arlington, Va.
Typhula itoana Imai	Snow mold	J. Bengston	4-4-41	Springfield, N.J.

ALOPECURUS CAROLINIANUS Walt.				
Scolecotrichum graminis Fckl.	Brown stripe	T. T. Ayers	4-10-41	Grand Coteau, La.
ANDROPOGON ARNULATUS Forsk.	ANGLETON GRASS			
Curvularia lunata (Wakker) Boedijn	Leaf spot	C. L. Lefebvre	12-10-40	Arlington, Va.
Ellisiella caudata (Pk.) Sacc.		C. L. Lefebvre	9-9-37	Tifton, Ga.
ANDROPOGON FURCATUS Muhl.	BIG BLUESTEM			
Puccinia andropogonis Schw.	Rust	H. Andersen	10-2-37	Manhattan, Kans.
Sphacelotheca andropogonis (Opiz) Bubak	Smut	D. Cornelius	7-1-39	Bucheng, Kans.
Sphacelotheca occidentalis (Geym.) Clint.	Smut	D. Cornelius	7-1-39	Junction City, Kans.
Sorosporium everhartii Ell. & Gall.	Smut	L. C. Newell	10-1-38	Pawnee City, Nebr.
ANDROPOGON HALLII Hack.	SAND BLUESTEM			
Puccinia andropogonis Schw.	Rust	G. L. Powers	11-31-38	Clovis, N. M.
Phyllachora luteo-maculata (Schw.) Orton	Leaf spot	G. L. Powers	10-31-38	Clovis, N. M.
ANDROPOGON SCOPARIUS Michx.	LITTLE BLUESTEM			
Bothriochloë atramentosa Atk.		W. W. Diehl and C. L. Lefebvre	6-11-19	Arlington, Va.
Puccinia andropogonis Schw.	Rust	C. O. Johnston	2-20-40	Manhattan, Kans.
Sorosporium everhartii Ell. & Gall.	Smut	C. L. Lefebvre	11-7-37	Bethesda, Md.
Sorosporium everhartii Ell.& Gall.	Smut	C. L. Lefebvre	10-17-38	Fall Church, Va.
Sorosporium everhartii Ell.& Gall.	Smut	C. L. Lefebvre	9-21-40	Reidsville, N.C.
Sphacelotheca andropogonis (Opiz.) Bubak	Smut	D. Cornelius	7-1-39	Admire, Kans.
Sphacelotheca andropogonis (Opiz.) Bubak	Smut	C. L. Lefebvre	9-21-40	Reidsville, N.C.
ANDROPOGON VIRGINICUS L.	BROOMSEDGE			
Sorosporium everhartii Ell. & Gall.	Smut	G. W. Burton	1-21-39	Tifton, Ga.
Uromyces andropogonis Tracy	Rust	G. W. Burton	11-21-38	Tifton, Ga.

ARISTIDA FENDLERIANA Steud.	FENDLER THREE-AWN			
Dothichloë hemicrypta Diehl		Mildred Pladeck	9-20-40	San Antonio, Tex.
ARRHENATHERUM ELATIUS (L.)Mert. & Koch	TALL OATGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	C. L. Lefebvre	6-13-33	Columbus, Ohio
Claviceps purpurea (Fr.) Tul.	Ergot	E. M. Brown	6-19-39	Columbia, Mo.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	8-23-38	Arlington Farm, Va.
Puccinia coronata Cda.	Crown rust	C. L. Lefebvre	5-22-39	Baton Rouge, La.
Puccinia graminis Pers.	Stem rust	C. L. Lefebvre	5-22-39	Baton Rouge, La.
Scolecotrichum graminis Fckl.	Brown stripe	H. L. Hyland and C. L. Lefebvre	6-3-38	Lexington, Ky.
Scolecotrichum graminis Fckl.	Brown stripe	C. L. Lefebvre	8-14-39	Beltsville, Md.
Ustilago perennans Rostr.	Smut	C. L. Lefebvre	6-9-39	Columbus, Ohio
Ustilago perennans Rostr.	Smut	C. M. Harrison	10-39	East Lansing, Mich.
AVENA SATIVA L.	OAT			
Helminthosporium avenae Eidam	Leaf spot	H. L. Hyland and C. L. Lefebvre	6-13-38	Milford Center, O.
Helminthosporium avenae Eidam	Leaf spot	H. W. Johnson	5-2-39	Quincy, Fla.
AXONOPUS AFFINIS Chase	CARPETGRASS			
Claviceps sp.	Ergot	C. L. Lefebvre	7-31-40	Jacksonville, Fla.
Claviceps sp.	Ergot	G. W. Burton	8-21-40	Tifton, Ga.
Claviceps sp.	Ergot	C. L. Lefebvre	9-14-40	Gainesville, Fla.
Cerebella andropogonis Ces.		C. L. Lefebvre	9-17-40	Gainesville, Fla.
Cerebella andropogonis Ces.		G. E. Ritchey	10-26-40	Gainesville, Fla.
Cerebella andropogonis Ces.		R. B. Carr	10-31-40	Kentwood, La.
Curvularia sp.		C. L. Lefebvre	5-5-41	Thomasville, Ga.
Helminthosporium sp.		C. L. Lefebvre	8-16-39	Fort Acres, Texas
AXONOPUS FURCATUS (Flugge) Hitchc.	BIG CARPETGRASS			
Curvularia sp.		G. E. Ritchey	11-2-38	Gainesville, Fla.

BOUTELOUA CURTIPENDULA (Michx.) Torr.	SIDE-OATS GRAMA			
Helminthosporium inconspicuum buchloes Ell. & Ev.	Leaf spot	C. L. Lefebvre	11-23-38	Manhattan, Kans.
Helminthosporium inconspicuum buchloes Ell. & Ev.	Leaf spot	L. C. Newell	7-25-39	Lincoln, Nebr.
Puccinia bartholomaei Diet.	Rust	D. Cornelius	7-1-39	Council Grove, Kans.
Puccinia bartholomaei Diet.	Rust	C. L. Lefebvre	8-31-40	Woodward, Okla.
Puccinia vexans Farl.	Rust	C. L. Lefebvre	8-31-40	Woodward, Okla.
Puccinia vexans Farl.	Rust.	L. C. Newell	10-1-38	Pawnee City, Nebr.
BOUTELOUA GRACILIS (H.B.K.) Lag.	BLUE GRAMA			
Helminthosporium inconspicuum buchloes Ell. & Ev.	Leaf spot	K. Anderson	8-28-39	Manhattan, Kans.
Ustilago bouteloune Kell. & Sw.	Smut	E. C. Conrad	9-21-38	Hubbel, Nebr.
Ustilago bouteloune Kell. & Sw.	Smut	I. E. Wenger	2-7-41	Hays, Kans.
BRACHIARIA DICTYONEURUM See page 560.				
BRACHYPODIUM PINNATUM Beauv.				
Helminthosporium sp.	Leaf spot	C. L. Lefebvre	7-13-39	Beltsville, Md.
BROMUS sp.	BROME			
Puccinia rubigo-vera (DC.) Winter	Rust	H. W. Johnson	8-30-39	Arlington, Va.
Septoria bromi Sacc.	Leaf spot	H. W. Johnson	8-28-39	Arlington, Va.
BROMUS CATHARTICUS Vahl.	RESCUEGRASS			
Erysiphe graminis DC.	Powdery mildew	C. L. Lefebvre	5-6-38	Griffin, Ga.
Erysiphe graminis DC.	Powdery mildew	R. C. Mauldin	5-13-39	San Antonio, Texas
Helminthosporium sp.	Leaf spot	G. W. Burton	4-20-39	Tifton, Ga.
Helminthosporium sp.	Leaf spot	G. E. Ritchey	4-20-39	Gainesville, Fla.
Ustilago bullata Berk.	Smut	L. C. Newell	6-13-36	Lincoln, Nebr.
Ustilago bullata Berk.	Smut	H. W. Pickett	6-27-40	San Antonio, Texas
BROMUS ERECTUS Huds.	MEADOW BROME			
Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	8-16-38	St. Paul, Minn.
BROMUS INERMIS Leyss.	SMOOTH BROME			
Bacterium coronafaciens atro-purpureum Reddy & Godkin	Leaf spot	B. Koehler	8-18-38	Urbana, Ill.

Bacterium coronafaciens atropurpureum Reddy & Godkin	Leaf spot	C. L. Lefebvre	8-20-39	Manhattan, Kans.
Bacterium coronafaciens atropurpureum Reddy & Godkin	Leaf spot	L. C. Newell	8-25-39	Lincoln, Nebr.
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	8-6-38	Langdon, N. Dak.
Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	8-10-38	St. Paul, Minn.
Claviceps purpurea (Fr.) Tul.	Ergot	A. C. Johnson	8-28-38	Madison, Wis.
Claviceps purpurea (Fr.) Tul.	Ergot	C. L. Lefebvre	6-30-38	Urbana, Ill.
Claviceps purpurea (Fr.) Tul.	Ergot	E. M. Brown	7-10-39	Columbia, Mo.
Helminthosporium bromi Died.	Leaf spot	C. L. Lefebvre	8-31-38	Beltsville, Md.
BROMUS SECALINUS L.	CHEAT			
Phyllosticta sp.	Leaf spot	C. L. Lefebvre	5-6-38	Experiment, Ga.
Septoria bromi Sacc.	Leaf spot	C. L. Lefebvre	5-14-38	Statesville, N.C.
Septoria bromi Sacc.	Leaf spot	C. L. Lefebvre	6-8-38	Lexington, Ky.
Septoria bromi Sacc.	Leaf spot	C. L. Lefebvre	6-9-38	Knoxville, Tenn.
BROMUS TECTORUM L.	DOWNY BROME			
Ustilago bullata Berk.	Smut	C. O. Johnston	7-26-40	Denver, Colo.
BUCHLOË DACTYLOIDES (Nutt.) Engelm.	BUFFALOGRASS			
Anguina sp.	Nematode	R. Mauldin and M. Pladeck	6-10-37	San Antonio, Texas
Anguina sp.	Nematode	L. E. Wenger	10-18-40	Hays, Kans.
Cercospora seminalis Ell. & Ev.	False smut	L. E. Wenger	7-10-38	Hays, Kans.
Cercospora seminalis Ell. & Ev.	False smut	A. Law	7-12-38	Manhattan, Kans.
Cercospora seminalis Ell. & Ev.	False smut	Mildred Pladeck	9-30-38	Pflugenville, Texas
Cercospora seminalis Ell. & Ev.	False smut	L. C. Newell	7-25-39	Lincoln, Nebr.
Cercospora seminalis Ell. & Ev.	False smut	Mildred Pladeck	8-7-39	San Antonio, Texas
Cercospora seminalis Ell. & Ev.	False smut	D. Cornelius	11-11-39	Wellington, Kans.
Helminthosporium sp.		M. Pladeck	8-28-39	San Antonio, Texas
Helminthosporium inconspicuum buchloes Ell. & Ev.	Leaf spot	C. L. Lefebvre	11-7-38	Manhattan, Kans.
Helminthosporium inconspicuum buchloes Ell. & Ev.	Leaf spot	Mildred Pladeck	8-11-39	Maverick Co., Texas

Phyllachora boutelouae Rehm.	Leaf spot	C. L. Lefebvre	5-26-39	College Station, Tex.
Puccinia kansensis Ell. & Barth.	Rust	A. Law	7-27-38	Manhattan, Kans.
Tilletia buchloeana Kell. & Sw.	Smut	D. Cornelius	6-15-39	Newton, Kans.
Tilletia buchloeana Kell. & Sw.	Smut	D. E. Griffith	9-28-40	San Antonio, Texas
CALAMAGROSTIS CANADENSIS (Michx.) Beauv.	BLUEJOINT			
Sclerotium rhizodes Auer.		C. L. Lefebvre	7-4-39	Fitzwilliams, Mass.
Sclerotium rhizodes Auer.		C. L. Lefebvre	7-21-39	West Hampton, N.H.
CENCHRUS BIFLORUS Roxb.	INDIAN SANDBUR			
Curvularia sp.		G. E. Ritchey	3-4-39	Gainesville, Fla.
Helminthosporium sp.	Leaf spot	G. E. Ritchey	3-4-39	Gainesville, Fla.
Phyllosticta sp.		G. E. Ritchey	3-8-39	Gainesville, Fla.
CENCHRUS PAUCIFLORUS Benth.	FIELD SANDBUR			
Sorosporium syntherismae (Pk.) Farl.	Smut	H. W. Johnson	8-3-37	Anoka, Minn.
Septoria cenchrina J. J. Davis	Leaf spot	H. W. Johnson	8-3-37	Anoka, Minn.
CENCHRUS TRIBULOIDES L.	DUNE SANDBUR			
Sorosporium syntherismae (Pk.) Farl.	Smut	S.J.P. Chilton and C.L.Lefebvre	8-1-39	Seaford, Del.
CHLORIS DISTICHOPHYLLA Lag.				
Curvularia sp.		G. E. Ritchey	3-12-39	Gainesville, Fla.
CHLORIS GAYANA Kunth	RHODESGRASS			
Helminthosporium sp.	Leaf spot	G. E. Ritchey	3-12-39	Gainesville, Fla.
CHLORIS PETRAEA Swartz				
Dothichloë limitata Diehl		C. L. Lefebvre	5-29-30	Gainesville, Fla.
CORTADERIA SELLOANA (Schult.) Aschers.& Graebn. (GYNERIUM ARGENTEUM Nees)	PAMPASGRASS			
Helminthosporium sp.	Leaf spot	H. W. Johnson	5-4-39	Tifton, Ga.

CYNODON DACTYLON (L.) Pers.	BERMUDA GRASS			
Helminthosporium sp.	Leaf spot	C. L. Lefebvre	9-19-38	Tifton, Ga.
Helminthosporium sp.	Leaf spot	G. E. Ritchey	7-30-40	Gainesville, Fla.
Helminthosporium cynodontis Marignoni		C. L. Lefebvre	9-19-38	Tifton, Ga.
Helminthosporium cynodontis Marignoni		G. E. Ritchey	7-3-40	Gainesville, Fla.
Helminthosporium cynodontis Marignoni		C. L. Lefebvre	10-21-40	Wakefield, Va.
Puccinia cynodontis Lacroix	Rust	C. L. Lefebvre	5-29-40	Gainesville, Fla.
Puccinia cynodontis Lacroix	Rust	R. McKee	4-29-41	Belle Glade, Fla.
Ustilago cynodontis P. Henn.	Smut	C. L. Lefebvre	5-27-39	Hearne, Texas
DACTYLIS GLOMERATA L.	ORCHARD GRASS			
	Bacterial stripe	C. L. Lefebvre	7-27-39	Beltsville, Md.
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
Claviceps purpurea (Fr.) Tul.	Ergot	H. L. Hyland and C. L. Lefebvre	6-8-38	Lexington, Ky.
Claviceps purpurea (Fr.) Tul.	Ergot	H. L. Hyland	7-12-38	Knoxville, Tenn.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	7-29-38	Beltsville, Md.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	8-10-38	Arlington, Va.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	9-21-40	Statesville, N. C.
Puccinia graminis Pers.	Stem rust	H. W. Johnson	7-29-37	Madison, Wis.
Puccinia graminis Pers.	Stem rust	C. L. Lefebvre	9-20-39	Beltsville, Md.
Scolecotrichum graminis Fckl.	Brown stripe	H. W. Johnson	7-30-37	Madison, Wis.
Scolecotrichum graminis Fckl.	Brown stripe	A. G. Johnson	8-4-37	Brookfield, Vt.
Scolecotrichum graminis Fckl.	Brown stripe	C. L. Lefebvre	8-13-37	Beltsville, Md.
Scolecotrichum graminis Fckl.	Brown stripe	H. L. Hyland and C. L. Lefebvre	6-8-38	Lexington, Ky.
Scolecotrichum graminis Fckl.	Brown stripe	C. L. Lefebvre	6-9-39	Columbia, Mo.
Scolecotrichum graminis Fckl.	Brown stripe	C. L. Lefebvre	8-22-39	Baton Rouge, La.
Scolecotrichum graminis Fckl.	Brown stripe	H. W. Johnson	8-22-39	Arlington, Va.
Ustilago striaeformis (West.) Niessl	Smut	H. L. Hyland and C. L. Lefebvre	6-9-38	Versailles, Ky.
Ustilago striaeformis (West.) Niessl	Smut	C. L. Lefebvre	5-30-39	Falls Church, Va.

Ustilago scrobiculata (Kze.) Niessl	Smut	C. L. Lefebvre	5-30-39	Falls Church, Va.
DACTYLOCTENIUM AEGYPTIUM (L.) Richt.	DURBAN GRASS			
Ustilago sparsa Underw.	Smut	S. E. Wolff	7-14-39	Sibley, La.
DANTHONIA COMPRESSA Austin				
Ustilago residua Clint.	Smut	G. R. Fessenden	7-11-40	Blue Ridge Mts., Va.
DIGITARIA sp.	CRABGRASS			
Curvularia sp.		G. E. Ritchey	3-9-38	Gainesville, Fla.
DIGITARIA ISCHAEMUM (Schreb.) Muhl.	SMOOTH CRABGRASS			
Ustilago rabenhorstiana Kühn.	Smut	S. Myaida	1938	Long Island, N.Y.
Ustilago rabenhorstiana Kühn.	Smut	H. W. Johnson	10-4-40	Arlington, Va.
DIGITARIA PENTZII Stent	WOOLLY FINGERGRASS			
Curvularia sp.	Leaf spot	G. E. Ritchey	3-9-39	Gainesville, Fla.
DIGITARIA SANGUINALIS (L.) Scop.	CRABGRASS			
Piricularia grisea (Cke.) Sacc.	Leaf spot	D. Heusinkveld	8-18-38	Urbana, Ill.
Ustilago rabenhorstiana Kühn	Smut	T. T. Ayers	9-26-39	Beltsville, Md.
DIGITARIA SEROTINA (Walt.) Michx.	BLANKETGRASS			
Piricularia grisea (Cke.) Sacc.	Leaf spot	G. E. Ritchey	5-16-38	Gainesville, Fla.
ELEUSINE INDICA (L.) Gaertn.	GOOSEGRASS			
Helminthosporium giganteum Heald & Wolf	Leaf spot	C. L. Lefebvre	10-3-38	Cabin John, Md.
Helminthosporium leucostylum Drechs.	Leaf spot	A. E. Hollowell	9-7-39	Takoma Park, Md.
Helminthosporium stenacrum Drechs.	Leaf spot	C. L. Lefebvre	10-10-38	Glen Echo, Md.
ELYMUS CANADENSIS L.	CANADA WILD-RYE			
Puccinia graminis Pers.	Stem rust	G. A. Rogler	1937	Mandan, N. Dak.
Puccinia graminis Pers.	Stem rust	D. Cornelius	7-1-39	Eskridge, Kans.
Scolecotrichum graminis Fckl.	Brown stripe	C. L. Lefebvre	6-6-39	Manhattan, Kans.

Urocystis agropyri (Preuss.) Schroet.	Smut	C. L. Lefebvre	6-6-39	Manhattan, Kans.
Ustilago striaeformis (West.) Niessl.	Smut	C. L. Lefebvre	6-8-39	Lincoln, Nebr.
ELYMUS CONDENSATUS Presl	GIANT WILD-RYE			
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	American Falls, Mont.
ELYMUS GLAUCUS Buckl.	BLUE WILD-RYE			
Scolecotrichum graminis Fckl.	Brown stripe	A. G. Johnson	6-12-37	Hiawatha, Kans.
ELYMUS JUNCEUS Fisch.	RUSSIAN WILD-RYE			
Puccinia graminis Pers.	Stem rust	G. A. Rogler	1937	Mandan, N. Dak.
ELYMUS MACOUNII Vasey	MACOUN WILD-RYE			
Ustilago striaeformis (West.) Niessl.	Smut	C. L. Lefebvre	6-8-39	Lincoln, Nebr.
ELYMUS PSEUDOAGROPYRON (Griseb.) Trin.				
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
ELYMUS VIRGINICUS L.	VIRGINIA WILD-RYE			
Claviceps purpurea (Fr.) Tul.	Ergot	E. M. Brown	8-1-38	Columbia, Mo.
EREMOCHLOA OPHIUROIDES (Munro) Hack.	CENTIPEDE GRASS			
Curvularia sp.		R. B. Carr	8-26-39	Baton Rouge, La.
ERIANTHUS HOSTII Griseb.				
Curvularia sp.		G. E. Ritchey	3-9-39	Gainesville, Fla.
Helminthosporium sp.	Leaf spot	G. E. Ritchey	3-9-39	Gainesville, Fla.
ERIOCHLOA POLYSTACHYA H.B.K.	CARIB GRASS			
Helminthosporium sp.		G. E. Ritchey	9-13-37	Belle Glade, Fla.

FESTUCA OVINA var. GLAUCA (Lam.) Koch	BLUE FESCUE			
Claviceps purpurea (Fr.) Tul.	Ergot	C. L. Lefebvre	6-26-38	Centralia, Mo.
FESTUCA OVINA L.	SHEEP FESCUE			
Helminthosporium sp.	Leaf spot	C. L. Lefebvre	7-11-39	Beltsville, Md.
FESTUCA RUBRA L.	RED FESCUE			
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	7-11-40	Arlington, Va.
Helminthosporium sp.		C. L. Lefebvre	6-30-39	Arlington, Va.
Helminthosporium sativum Pam., King, & Bak.		C. L. Lefebvre	4-5-40	Arlington, Va.
Rhizoctonia solani Kühn	Brown patch	John Bengston	4-24-40	Arlington, Va.
GLYCERIA CANADENSIS (Michx.) Trin.	RATTLESNAKE MANNAGRASS			
Septoria nodorum Berk.	Leaf spot	C. L. Lefebvre	7-7-39	Dennis, Mass.
HILARIA BELANGERI (Steud.) Nash	CURLY-MESQUITE			
Ustilago affinis Ell. & Ev.	Smut	R. C. Mauldin	4-24-40	San Antonio, Texas
HILARIA MUTICA (Buckl.) Benth.	TOBOSA GRASS			
Claviceps cinereum Griffiths	Ergot	Sent in	1940	Roswell, N.M.
HOLCUS LANATUS L.	VELVET GRASS			
Puccinia coronata Cda.	Crown rust	C. L. Lefebvre	5-23-40	Tifton, Ga.
Puccinia coronata Cda.	Crown rust	C. L. Lefebvre	6-4-40	Chapel Hill, N.C.
HORDEUM BULBOSUM L.	BULBOUS BARLEY			
Puccinia graminis Pers.	Stem rust	C. L. Lefebvre	9-20-39	Beltsville, Md.
HORDEUM JUBATUM L.	FOXTAIL BARLEY			
Scolecotrichum graminis Fckl.	Brown stripe	A. G. Johnson	6-15-39	Atkinson, Miss.

HORDEUM NODOSUM L.	MEADOW BARLEY			
Ustilago bullata Berk.	Smut	C. L. Lefebvre	5-3-38	Arlington, Va.
HORDEUM PUSILLUM Nutt.	LITTLE BARLEY			
Scolecotrichum graminis Fckl.	Brown stripe	C. L. Lefebvre	6-9-39	Columbia, Mo.
PANICUM COMMONSIANUM Ashe				
Dothichloë nigricans (Speg.) Chardon		C. L. Lefebvre and S.J.P. Chilton	8-1-39	Rehobeth, Del.
PANICUM DICHOTOMIFLORUM Michx.	FALL PANICUM			
Sorosporium syntherismae (Pk.) Farl.	Smut	H. W. Johnson	10-5-37	Arlington, Va.
Sorosporium syntherismae (Pk.) Farl.	Smut	G. D.Darker	9-10-39	Cambridge, Mass.
BRACHIARIA DICTYONEURUM (Fig. & deNot.) Stapf (PANICUM DICTYONEURUM Fig. & deNot.)				
Curvularia lunata (Wakker) Boedijn		G. E. Ritchey	3-8-39	Gainesville, Fla.
Helminthosporium sp.	Leaf spot	G.E.Ritchey	3-8-39	Gainesville, Fla.
PANICUM HEMITOMON Schult.	MAIDEN CANE			
Dothichloë nigricans (Speg.) Chardon		C. L. Lefebvre	5-29-40	Gainesville, Fla.
PANICUM MAXIMUM Jacq.	GUINEA GRASS			
Helminthosporium sp.	Leaf spot	C. L. Lefebvre	4-28-38	Chinsegut Hill, Fla.
PANICUM OBTUSUM H.B.K.	VINE-MESQUITE			
Phyllachora n.sp. Orton	Leaf spot	C. L. Lefebvre	6-1-39	Woodward, Okla.
PANICUM PURPURASCENS Raddi	PARAGRASS			
Helminthosporium sp.	Leaf spot	G. E. Ritchey	1-28-41	Gainesville, Fla.

PANICUM VIRGATUM L.	SWITCHGRASS			
Puccinia panici Diet.	Rust	E. Nielsen	8-21-40	Fayetteville, Ark.
Uromyces graminicola Burr.	Rust	D. Cornelius	7-1-39	Eskridge, Kans.
PASPALUM ALMUM Chase	COMBS PASPALUM			
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	10-15-40	Arlington, Va.
Helminthosporium sp.		C. L. Lefebvre	8-16-39	Fort Acres, Texas
PASPALUM BOSCIANUM Flügge	BULL PASPALUM			
Helminthosporium micropus Drechs.	Leaf spot	C. L. Lefebvre	10-15-40	Quincy, Fla.
Helminthosporium rostratum Drechs.		C. L. Lefebvre	3-18-41	Tifton, Ga.
PASPALUM CAESPITOSUM Flügge				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-17-40	Gainesville, Fla.
PASPALUM CILIATIFOLIUM Michx.				
Chaetospermum tubercularioides (Pat.) Sacc.		C. L. Lefebvre	3-3-38	Moore Haven, Fla.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-17-40	Gainesville, Fla.
PASPALUM DILATATUM Poir	DALLISGRASS			
Cladosporium sp.		Simon E. Wolff	7-14-39	Sibley, La.
Claviceps paspali Stevens & Hall	Ergot	R. E. Stitt	9-8-38	Statesville, N.C.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-13-37	Belle Glade, Fla.
Claviceps paspali Stevens & Hall	Ergot	Simon E.Wolff	7-14-39	Sibley, La.
Claviceps paspali Stevens & Hall	Ergot	F. W. Poos	9-14-39	Holland, Va.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-21-40	Auburn, Ala.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-25-40	Tifton, Ga.
Claviceps paspali Stevens & Hall	Ergot	E. L. Nielsen	7-27-40	Biloxi, Miss.
Claviceps paspali Stevens & Hall	Ergot	E. L. Nielsen	7-27-40	New Orleans, La.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-27-40	Quincy, Fla.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-29-40	Gainesville, Fla.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-30-40	Jacksonville, Fla.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	8-1-40	Savannah, Ga.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	8-1-40	Summerville, S.C.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	8-2-40	Rocky Point, N.C.
Claviceps paspali Stevens & Hall	Ergot	R. L. Lovvorn	9-5-40	Willard, N.C.

Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-9-40	College Station, Tex.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-12-40	Hamburg, La.
Claviceps paspali Stevens & Hall	Ergot	E. L. Nielsen	10-1-40	Marianna, Ark.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	9-17-40	Gainesville, Fla.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	G. W. Burton	10-7-40	Tifton, Ga.
Fusarium heterosporum Nees		Simon E. Wolff	7-14-39	Sibley, La.
Phyllosticta sp.		H. W. Johnson	3-19-39	Summerville, S.C.
Stagonospora paspali Atk.	Leaf spot	C. L. Lefebvre	5-25-39	Lufkin, Texas
Stagonospora paspali Atk.	Leaf spot	C. L. Lefebvre	6-3-40	Raleigh, N.C.
Stagonospora paspali Atk.	Leaf spot	C. L. Lefebvre	7-23-40	Tifton, Ga.
PASPALUM DISTICHUM L.	KNOTGRASS			
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-29-39	Arlington, Va.
PASPALUM FLORIDANUM Michx.				
Cerebella andropogonis Ces.	Ergot	G. W.Burton	1-3-38	Tifton, Ga.
Cerebella andropogonis Ces.	Ergot	C. L. Lefebvre	9-17-40	Gainesville, Fla.
Claviceps paspali Stevens & Hall	Ergot	G. W. Burton	11-3-38	Tifton, Ga.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	8-12-39	Arlington, Va.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-17-40	Gainesville, Fla.
PASPALUM FLORIDANUM var. GLABRATUM Engelm.				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	8-12-39	Arlington, Va.
Stagonospora paspali Atk.	Leaf spot	C. L. Lefebvre	6-3-40	Clayton, N.C.
PASPALUM GIGANTEUM Baldw.				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-17-40	Gainesville, Fla.
PASPALUM INTERMEDIUM Munro				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-14-39	Arlington, Va.
PASPALUM LAEVE Michx.	FIELD PASPALUM			
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	10-3-37	Arlington, Va.
Claviceps paspali Stevens & Hall	Ergot	John Bengston	10-12-39	Fairfax, Va.

PASPALUM LANGEI (Fourn.) Nash				
Claviceps paspali Stevens & Hall		C. L. Lefebvre	10-21-38	Arlington, Va.
PASPALUM LIVIDUM Trin.	LONGTOM			
Helminthosporium sp.		C. L. Lefebvre	4-28-38	Chinsegut Hill, Fla.
PASPALUM LONGIPILUM Nash				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	8-17-39	Arlington, Va.
PASPALUM MONOSTACHYUM Vasey				
Claviceps paspali Stevens & Hall	Ergot	Mildred Pladeck	1939	San Antonio, Texas
PASPALUM NOTATUM Flügge	BAHIAGRASS			
Claviceps paspali Stevens & Hall	Ergot	In seed sample	1937	Tucson, Ariz.
Claviceps paspali Stevens & Hall	Ergot	G. W. Burton	9-13-38	Tifton, Ga.
Claviceps paspali Stevens & Hall	Ergot	Simon E. Wolff	7-14-39	Sibley, La.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-27-40	Quincy, Fla.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-29-40	Gainesville, Fla.
Claviceps paspali Stevens & Hall	Ergot	G. E. Ritchey	7-30-40	Brooksville, Fla.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-12-40	Baton Rouge, La.
Curvularia sp.		H. W. Johnson	4-27-39	Brooksville, Fla.
Fusarium heterosporum Nees		G. E. Ritchey	7-30-40	Brooksville, Fla.
Fusarium heterosporum Nees		Simon E. Wolff	7-14-39	Sibley, La.
Helminthosporium sp.		C. L. Lefebvre	5-27-38	Gainesville, Fla.
Helminthosporium sp.		H. W. Johnson	4-27-39	Brooksville, Fla.
Helminthosporium sp.	Leaf spot	C. L. Lefebvre	7-27-40	Quincy, Fla.
PASPALUM NOTATUM Flügge	BAHIAGRASS - PARAGUAY STRAIN			
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-29-40	Gainesville, Fla.
Claviceps paspali Stevens & Hall	Ergot	G. W. Burton	8-6-40	Tifton, Ga.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-13-40	Baton Rouge, La.
PASPALUM PANICULATUM L.				
Helminthosporium sp.		C. L. Lefebvre	3-29-38	Belle Glade, Fla.

PASPALUM PLICATULUM Michx.				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-29-40	Gainesville, Fla.
Tilletia rugispora Ell. & Gall.	Smut	M. P. Mauldin	4-21-41	Sibley, La.
PASPALUM PUBESCENS Muhl.				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	10-11-37	Arlington, Va.
Phyllachora n.sp. Orton	Leaf spot	C. L. Lefebvre	8-1-38	Leesburg, Va.
PASPALUM PUBIFLORUM Rupr.				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	3-27-39	Arlington, Va.
PASPALUM QUADRIFARIUM Lam.				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	10-29-39	Arlington, Va.
PASPALUM STRAMINEUM Nash	SAND PASPALUM			
Puccinia substriata Ell. & Barth.	Rust	C. L. Lefebvre	9-19-39	Arlington, Va.
PASPALUM SUPINUM Bosc.				
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	10-15-40	Arlington, Va.
PASPALUM URVILLEI Steud.	VASEYGRASS			
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	10-12-38	Arlington, Va.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-29-40	Gainesville, Fla.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	7-30-40	Jacksonville, Fla.
Claviceps paspali Stevens & Hall	Ergot	R. L. Lovvorn	9-5-40	Willard, N. C.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-12-40	Hamburg, La.
Claviceps paspali Stevens & Hall	Ergot	C. L. Lefebvre	9-13-40	Baton Rouge, La.
Helminthosporium sp.		C. L. Lefebvre	3-29-38	Belle Glade, Fla.
Puccinia levis (Sacc. & Bizz.) Magn.	Rust	G. W. Burton	11-17-39	Tifton, Ga.
Puccinia levis (Sacc. & Bizz.) Magn.	Rust	I. L. Forbes	9-12-40	Baton Rouge, La.
Puccinia levis (Sacc. & Bizz.) Magn.	Rust	C. L. Lefebvre	9-17-40	Gainesville, Fla.
PENNISETUM GLAUCUM (L.) R. BR.	PEARL MILLET			
Curvularia sp.		G. W. Burton	12-6-38	Tifton, Ga.
Helminthosporium sp.		G. W. Burton	12-6-38	Tifton, Ga.

Helminthosporium sp.

PENNISETUM ORIENTALE L. Rich. Helminthosporium sp.	ORIENTAL PENNISETUM	G. E. Ritchey	3-9-39	Gainesville, Fla.
PENNISETUM PURPUREUM Schumach Curvularia sp. Helminthosporium sacchari (B.deH.) Butler Helminthosporium sacchari (B.deH.) Butler	NAPIERGRASS	G. W. Burton	12-22-38	Tifton, Ga.
	Eyespot	G. E. Ritchey	9-15-37	Gainesville, Fla.
	Eyespot	G. W. Burton	8-5-39	Tifton, Ga.
PHLARIS ARUNDINACEA L. Claviceps purpurea (Fr.) Tul. Helminthosporium sativum Pam. King & Bak. Helminthosporium sativum Pam. King & Bak. Helminthosporium sp.	REED CANARYGRASS Ergot	C. L. Lefebvre	6-30-38	Urbana, Ill.
	Leaf spot	A. G. Johnson	12-13-38	Madison, Wis.
	Leaf spot	C. L. Lefebvre	7-3-40	Beltsville, Md.
		C. L. Lefebvre	12-14-40	Chapel Hill, N.C.
PHLEUM PRATENSE L. Curvularia sp. Heterosporium phlei Gregory Sclecotrichum graminis Fckl. Sclecotrichum graminis Fckl. Sclecotrichum graminis Fckl. Sclecotrichum graminis Fckl. Scolecotrichum graminis Fckl. Ustilago striaeformis (West.) Niessl	TIMOTHY	E. M. Brown	7-26-38	Columbia
	Leaf spot	C. L. Lefebvre	10-23-38	Kylertown, Pa.
	Brown stripe	A. G. Johnson	8-4-37	Brookfield, Vt.
	Brown stripe	C. L. Lefebvre	8-14-37	Beltsville, Md.
	Brown stripe	H. L. Hyland and C. L. Lefebvre	6-6-38	Knoxville, Ky.
	Brown stripe	A. G. Johnson	6-15-38	Atkinson, Wis.
	Brown stripe	C. L. Lefebvre	6-9-39	Columbia, Mo.
	Smut	C. L. Lefebvre	5-19-38	Statesville, N.C.
POA AMPLA Merr. Claviceps purpurea (Fr.) Tul.	PIG BLUEGRASS Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
POA CANBYI (Scribn.) Piper Claviceps purpurea (Fr.) Tul.	CANBY BLUEGRASS Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.

POA COMPRESSA L.	CANADA BLUEGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
Dinemasporium graminum Lév.		C. L. Lefebvre	10-11-39	Beltsville, Md.
Scolecotrichum graminis Fckl.	Brown stripe	H. W. Johnson	7-9-37	State College, Pa.
Scolecotrichum graminis Fckl.	Brown stripe	C. L. Lefebvre	8-14-37	Beltsville, Md.
Scolecotrichum graminis Fckl.	Brown stripe	C. L. Lefebvre	6-9-39	Columbia, Mo.
POA NEVADENSIS Vasey	NEVADA BLUEGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
POA PRATENSIS L.	KENTUCKY BLUEGRASS			
Ascochyta sp.		H. L. Hyland and C. L. Lefebvre	6-10-38	Mt. Sterling, Ohio
Ascochyta graminicola Sacc.		C. L. Lefebvre	5-14-38	Statesville, N. C.
Claviceps purpurea (Fr.) Tul.	Ergot	H. L. Hyland and C. L. Lefebvre	6-8-38	Lexington, Ky.
Curvularia sp.		C. L. Lefebvre	11-2-38	Arlington, Va.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	H. L. Hyland and C. L. Lefebvre		Mount Sterling, Ohio
Entyloma irregulare Johans.	White smut	C. L. Lefebvre	3-17-38	Arlington, Va.
Helminthosporium vagans Drechs.	Eyespot	H. W. Johnson	10-1-37	Arlington, Va.
Helminthosporium vagans Drechs.	Crown rot	H. W. Johnson and C. L. Lefebvre	10-11-38	Beltsville, Md.
Helminthosporium vagans Drechs.	Eyespot	H. W. Johnson	6-28-39	Hillards, Ohio
Helminthosporium vagans Drechs.	Eyespot	C. L. Lefebvre	7-19-39	Baldwinsville, Mass.
Helminthosporium vagans Drechs.	Eyespot	S.J.P. Chilton and C. L. Lefebvre	9-14-39	Whitney, N.Y.
Helminthosporium vagans Drechs.	Eyespot	S.J.P. Chilton and C. L. Lefebvre	9-15-39	Princeton, N.J.
Puccinia poae-sudeticae (West.) Jørstad	Rust	H. W. Johnson	7-9-37	State College, Pa.
Puccinia poae-sudeticae (West.) Jørstad	Rust	C. L. Lefebvre	5-14-38	Statesville, N. C.
Puccinia poae-sudeticae (West.) Jørstad	Rust	H. L. Hyland and C. L. Lefebvre	6-9-38	Versailles, Ky.
Puccinia poae-sudeticae (West.) Jørstad	Rust	H. L. Hyland and C. L. Lefebvre	6-10-38	Mt. Sterling, Ohio

Septoria macropoda septulata (Frag.) Sprague	Leaf spot	C. L. Lefebvre	3-18-38	Arlington, Va.
Ustilago striaeformis (West.) Niessl.	Smut	C. L. Lefebvre	1-14-38	Madison, Wis.
Ustilago striaeformis (West.) Niessl	Smut	H. W. Johnson and C. L. Lefebvre	5-5-38	Arlington, Va.
POA PRATENSIS X POA ARACHNIFERA F_1 HYBRID				
Claviceps purpurea (Fr.) Tul.	Ergot	E. M. Brown	6-28-38	Columbia, Mo.
SECALE sp. MICHEL'S RYE				
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	7-28-38	Brookings, S.Dak.
Claviceps purpurea (Fr.) Tul.	Ergot	E. A. Hollowell	8-18-40	Amherst, Mass.
Puccinia dispersa Erikss. & Henn.	Rust	G. E. Ritchey	3-30-39	Gainesville, Fla.
Puccinia dispersa Erikss. & Henn.	Rust	H. W. Johnson	4-12-39	Experiment, Ga.
SETARIA ITALICA (L.) Beauv. FOXTAIL MILLET				
Helminthosporium setariae Saw.	Leaf spot	A. G. Johnson and H. W. Johnson	7-11-35	Beltsville, Md.
Piricularia grisea (Cke.) Sacc.	Leaf spot	C. L. Lefebvre	8-27-38	Beltsville, Md.
Piricularia grisea (Cke.) Sacc.	Leaf spot	C. L. Lefebvre	8-9-40	Winchenden, Mass.
SETARIA LUTESCENS (Weigel) F. T. Hubb YELLOW BRISTLEGRASS				
Piricularia grisea (Cke.) Sacc.	Leaf spot	C. L. Lefebvre	8-27-38	Arlington, Va.
Pseudomonas alboprecipitans Rosen	Bacterial spot	C. L. Lefebvre	8-27-38	Arlington, Va.
Ustilago neglecta Niessl	Smut	H. L. Hyland	8-1-39	Thorsby, Ala.
SETARIA MACROSTACHYA H.B.K. PLAINS BRISTLEGRASS				
Claviceps ranunculoides Möller	Ergot	Mildred Pladeck	1938	Prima, Ariz.
SETARIA VIRIDIS (L.) Beauv. GREEN BRISTLEGRASS				
Piricularia grisea (Cke.) Sacc.	Leaf spot	C. L. Lefebvre	6-23-38	Manhattan, Kans.
Piricularia grisea (Cke.) Sacc.	Leaf spot	C. L. Lefebvre	8-15-38	Martinsburg, W.Va.
Sclerospora graminicola (Sacc.) Schroet.	Downy mildew	C. L. Lefebvre	9-10-38	Elk River, Minn.

SORGHUM sp. P.E.I. 133,089	SORGHUM			
Sphacelotheca cruenta (Kühn) A. Potter	Smut	Mildred Pladeck	11-1-38	San Antonio, Tex.
SORGHUM HALEPENSE (L.) Pers.	JOHNSONGRASS			
Ascochyta sorghina Sacc.	Leaf spot	R. Leukel and C. L. Lefebvre	9-20-40	Arabi, Ga.
Ascochyta sorghina Sacc.	Leaf spot	R. Leukel and C. L. Lefebvre	9-21-40	Shelby, N. C.
Cercospora sorghi Ell. & Ev.	Leaf spot	A. G. Johnson	9-13-38	Sweetwater, Tenn.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	5-8-38	Fort Valley, Ga.
Helminthosporium turcicum Pass.	Leaf blight	J. L. Weimer	10-13-37	Fort Valley, Ga.
Helminthosporium turcicum Pass.	Leaf blight	C. L. Lefebvre	1939	Baton Rouge, La.
Helminthosporium turcicum Pass.	Leaf blight	C. L. Lefebvre	8-1-40	Charleston, S. C.
Helminthosporium turcicum Pass.	Leaf blight	R. Leukel and C. L. Lefebvre	9-20-40	Arabi, Ga.
Sphacelotheca cruenta (Kühn) A. Potter	Smut	A. A. Dunlap & C. L. Lefebvre	8-4-39	College Station, Tex.
SORGHUM VULGARE Pers.	SORGHUM			
Ascochyta sorghina Sacc.	Leaf spot	R. Leukel and C. L. Lefebvre	9-17-40	Gainesville, Fla.
Ascochyta sorghina Sacc.	Leaf spot	R. Leukel and C. L. Lefebvre	9-20-40	Greenville, S. C.
Ascochyta sorghina Sacc.	Leaf spot	R. Leukel and C. L. Lefebvre	9-20-40	Athens, Ga.
Ascochyta sorghina Sacc.	Leaf spot	R. Luekel and C. L. Lefebvre	9-21-40	Shelby, N.C.
Cercospora sorghi Ell. & Ev.	Leaf spot	C. L. Lefebvre	9-19-40	Tifton, Ga.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	G. E. Ritchey	4-28-38	Quincy, Fla.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	R. Leukel and C. L. Lefebvre	9-19-40	Tifton, Ga.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	R. Leukel and C. L. Lefebvre	9-20-40	Greenville, S. C.

Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	R. Leukel and C. L. Lefebvre	9-21-40	Lincolnton, N. C.
Helminthosporium turcicum Pass.	Leaf blight	C. L. Lefebvre	8-25-38	Arlington, Va.
Phyllosticta sp.		G. E. Ritchey	6-3-40	Gainesville, Fla.
Sphacelotheca sorghi (Lk.) Clint.	Smut	C. L. Lefebvre	8-1-40	Charleston, S. C.
SORGHUM VULGARE var. SUDANENSIS (Piper) Hitchc.	SUDANGRASS			
Ascochyta sorghina Sacc.	Leaf spot	C. L. Lefebvre	7-24-40	Tifton, Ga.
Bacterium andropogoni E.F. Smith	Bacterial stripe	C. L. Lefebvre	8-10-37	Arlington, Va.
Bacterium holci Kendrick	Bacterial spot	C. L. Lefebvre	8-21-39	Chillicothe, Tex.
Bacterium holcicola Charlotte Elliott	Bacterial streak	C. L. Lefebvre	8-10-37	Arlington, Va.
Blakeslea trispora Thaxt.		C. L. Lefebvre	7-19-39	Jeanerette, La.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	C. L. Lefebvre	10-6-38	Arlington, Va.
Colletotrichum graminicolum (Ces.) Wils.	Anthracnose	G. W. Burton	7-31-39	Tifton, Ga.
Helminthosporium sp.	Leaf spot	G. W. Burton	1-26-39	Tifton, Ga.
Helminthosporium catenarium Drechs.		C. L. Lefebvre	7-27-39	Arlington, Va.
Helminthosporium sativum Pam., King, & Bak.		T. Brooks	7-19-39	Arlington, Va.
Helminthosporium turcicum Pass.	Leaf blight	A. G. Johnson and H.W. Johnson	7-23-35	Beltsville, Md.
Helminthosporium turcicum Pass.	Leaf blight	G. W.Burton	1936	Tifton, Ga.
Helminthosporium turcicum Pass.	Leaf blight	R.B.Carr	7-19-39	Jeanerette, La.
Helminthosporium turcicum Pass.	Leaf blight	E. M.Brown	7-20-39	Columbia, Mo.
Helminthosporium turcicum Pass.	Leaf blight	C. L. Lefebvre	10-26-40	Elk River, Minn.
Phyllosticta sp.		C. L. Lefebvre	7-7-37	Beltsville, Md.
Pythium sp.	Root rot	G. W. Burton	8-27-38	Tifton, Ga.
Sphacelotheca sorghi (Lk.) Clint	Smut	H. W. Johnson	7-30-37	Madison, Wis.
Titaeospora andropogonis (Miura) Clements & Shear		C. L. Lefebvre	7-20-39	Arlington, Va.

SORGHASTRUM NUTANS (L.) Nash	INDIANGRASS			
Helminthosporium sp.		K. Anderson	11-24-38	Manhattan, Kans.
Puccinia virgata Ell. & Ev.	Rust	G. W. Burton	11-21-38	Tifton, Ga.
Sphacelotheca chrysopogonis Clinton	Smut	C. L. Lefebvre	11-7-37	Bethesda, Md.
SPARTINA PECTINATA Link	PRAIRIE CORDGRASS			
Puccinia distichlidis Ell.& Ev.	Rust	L. C. Newell	10-2-38	Lincoln, Nebr.
SPOROBOLUS AIROIDES (Torr.) Torr.	ALKALI SACATON			
Anguina sp.	Nematode	C. L. Lefebvre	6-1-39	Woodward, Okla.
SPOROBOLUS ASPER (Michx.) Kunth	ROUGH DROPSEED			
Puccinia vilfae Arth. & Holw.	Rust	L. C. Newell	10-1-38	Pawnee Co., Nebr.
SPOROBOLUS CRYPTANDRUS (Torr.) A. Gray	SAND DROPSEED			
Anguina sp.	Nematode	D. Cornelius	7-13-38	Manhattan, Kans.
SPOROBOLUS FLEXUOSUS (Thurb.) Rydb.	MESA DROPSEED			
Anguina sp.	Nematode	Mildred Pladeck	10-37	Willcox, Texas
SPOROBOLUS POIRETI (Roem. & Schult.) Hitch.	SMUTGRASS			
Dothichloë limitata Diehl		T. T. Ayers	7-19-40	Sunset, La.
Helminthosporium ravenelii Curt.	False smut	G. E.Ritchey	6-17-38	Gainesville, Fla.
Helminthosporium ravenelii Curt.	False smut	G. W. Burton	7-31-39	Tifton, Ga.
Helminthosporium ravenelii Curt.	False smut	T.T.Ayers	8-28-40	University, La.
Helminthosporium ravenelii Curt.	False smut	E.F. Mangelsdorf	10-29-40	Hawaii
STENOTAPHARUM SECUNDATUM (Walt.) Kuntze	ST. AUGUSTINEGRASS			
Helminthosporium sp.		C. L. Lefebvre	8-16-39	Baton Rouge, La.
Nigrospora sphaerica (Sacc.) Mason		C. L. Lefebvre	9-15-30	Gainesville, Fla.
Piricularia grisea (Cke.) Sacc.	Leaf spot	G. E. Ritchey	6-15-40	Gainesville, Fla.
Piricularia grisea (Cke.) Sacc.	Leaf spot	W. N. Ezekiel	8-17-39	Houston, Tex.
Rhizoctonia oryzae Ryker & Gooch	Leaf spot	G. E. Ritchey	8-23-39	Gainesville, Fla.

STIPA COMATA Trin. & Rupr.	NEEDLE-AND-THREAD			
Puccinia windsoriae Schw.	Rust	T. L. Grant	8-9-38	Arlington, Va.
Ustilago hypodytes (Schlecht.) Fr.	Smut	C. L. Lefebvre	8-31-40	Woodward, Okla.
STIPA ROBUSTA Scribn.	SLEEPYGRASS			
Claviceps purpurea (Fr.) Tul.	Ergot	H. A. Rodenhiser	1938	Bozeman, Mont.
TRIODIA FLAVA (L.) Smyth.	PURPLETOP			
Stagonospora paspali Atk.	Leaf spot	C. L. Lefebvre	8-1-38	Leesburg, Va.
TRIPSACUM DACTYLOIDES (L.) L.	EASTERN GAMAGRASS			
Claviceps tripsaci Stevens & Hall	Ergot	C. L. Lefebvre	9-25-37	Arlington, Va.
Puccinia polysora Underw.	Rust	C. L. Lefebvre	9-25-37	Arlington, Va.
TRISETUM FLAVESCENS (L.) Beauv.	YELLOW TRISETUM			
Scolecotrichum graminis Fckl.	Brown stripe	S.J.P. Chilton and C. L. Lefebvre	8-7-39	Ithaca, N. Y.
TRITICUM AESTIVUM L.	WHEAT			
Helminthosporium sativum Pam. King & Bak.	Leaf spot	A. G. Johnson	12-9-38	Washington, D. C.
Septoria nodorum Berk.	Glume blotch	H. L. Hyland and C. L. Lefebvre	6-14-38	Carpenter, Ohio
TRITICUM DURUM Desf.	DURUM WHEAT			
Claviceps purpurea (Fr.) Tul.	Ergot	H. B. Humphrey	8-4-38	Fargo, N. Dak.
ZEA MAYS L.	CORN			
Helminthosporium turcicum Pass.	Leaf blight	C. L. Lefebvre	12-2-40	Montross, Va.
Helminthosporium turcicum Pass.	Leaf blight	C. L. Lefebvre	12-2-40	Willard, N. C.
Helminthosporium rostratum Drechs.		C. L. Lefebvre	12-2-40	Tifton, Ga.
Puccinia sorghi Schw.	Rust	C. L. Lefebvre	5-31-40	Gainesville, Fla.
ZOYSIA JAPONICA Stued.	JAPANESE LAWNGRASS			
Claviceps yanagawaensis Togashi	Ergot		1939	In seed sample from Japan.

CHECK LIST REVISION

Freeman Weiss

POPULUS ACUMINATA Rydb., under P. TACAMAHACA.

POPULUS ALBA L., WHITE POPLAR. Large tree of C. and S. Europe to W. Asia, widely cult. and naturalized in Growth Regions 6, 8, 9, 11, 22, 25, 27, 28, 29; including several vars., particularly P. ALBA NIVEA Ait., SILVER POPLAR and P. A. PYRAMIDALIS Bge. (P. bolleana Lauche) BOLLEANA or TURKESTAN POPLAR; also P. CANESCENS (Ait.) Sm., GRAY POPLAR.

Cercospora poplina Ell. & Ev., leaf spot. La.
(Cytospora chrysosperma Pers. ex Fr.): Valsa sordida.
Didymosphaeria populina Vuill., shoot blight. Me.
Dothichiza populea Sacc. & Briard, branch & twig canker. Conn., Ind., Iowa, Mass.
Fomes applanatus (Pers. ex Fr.) Gill., root & butt rot. Conn., Utah.
Marssonina castagnei (Desm. & Mont.) Magn., leafspot. Eastern States to Great Plains. Conidial stage of Pseudopeziza (Drepanopeziza) populi-albae Kleb.
Melampsora abietis-canadensis (Farl.) Ludwig, leaf rust (II,III). Pa.
M. aecidioides (DC.) Schroet., leaf rust (II). R.I., Colo., Pacific Coast States.
M. occidentalis Jacks., leaf rust (II,III). Calif.
Phyllosticta alcides Sacc., leaf spot. Ohio
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.
Physalospora obtusa (Schw.) Cke., on branches. N.Y., Va.
Phytomonas tumefaciens (EFS. & Town.) Bergey, limb gall. Conn., Minn., Nebr.
Polyporus hirsutus Wulf. ex Fr., white heart rot. Tenn.
Pseudopeziza (Drepanopeziza) populi-albae Kleb., on leaves. Conn., Ga., Mich., N. Y.
Taphrina johansonii Sadeb., catkin deformity. N.Y.
Valsa nivea Hoffm. ex Fr. and V. sordida Nit., branch & twig canker. Widespread.

POPULUS ANGULATA Ait., under P. DELTOIDES.
POPULUS ANGUSTIFOLIA James, under P. TACAMAHACCA.
(POPULUS BALSAMIFERA L.): P. DELTOIDES var. MISSOURIENSIS.
(POPULUS BALSAMIFERA Muenchh.): P. TACAMAHACA.
POPULUS BEROLINENSIS Dipp., under P. NIGRA.

POPULUS CANADENSIS Moench (P. deltoides x nigra). A group of natural hybrids, widely cult. One of these, CAROLINA POPLAR (P. CANADENSIS EUGENEI (Simon-Louis) Schelle) is often used in street plantings; the name is sometimes applied to the entire group.

Botryosphaeria ribis (Tode ex Fr.) Gross. & Dug., branch canker. Ark.

POPULUS -- Continued

Dothichiza populea Sacc. & Briard, branch canker. Conn., Ohio.
Fomes applanatus (Pers. ex Fr.) Gill., white mottled heart rot. N.Y.
Marssonina spp., leaf spot. Iowa, Md.
Mycosphaerella populorum Thompson, leaf spot. N.Y.
Phyllosticta alcides Sacc., leaf spot. Ala.
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.
Phytomonas tumefaciens EFS. & Town., limb gall.
Valsa sordida Nit., canker & dieback. Widespread.

POPULUS CANDICANS Ait., under P. TACAMAHACA
POPULUS CANESCENS (Ait.) Sm., under P. ALBA

POPULUS DELTOIDES Marsh., COTTONWOOD. Large tree of Growth Regions 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30; also cult., Zone II. Two principal vars., to which a confusing variety of names has been applied, are recognized: P. DELTOIDES VIRGINIANA (Castiglioni) Sudw. (P. monilifera Ait.), EASTERN COTTONWOOD, and P. DELTOIDES MISSOURIENSIS Henry (P. balsamifera L.), SOUTHERN COTTONWOOD, but their ranges overlap. Including also P. HETEROPHYLLA L., SWAMP COTTONWOOD, and P. ANGULATA Ait.

Cercospora populina Ell. & Ev., leaf spot. La.
C. populicola Tharp, leaf spot. Texas.
C. reducta Syd., on leaves. Ala.
Cryptodiaporthe salicina (Curr.) Weh., on branches. N.Y.
(Cytospora chrysosperma Pers. ex Fr.): Valsa sordida.
Dothichiza populea Sacc. & Briard, branch canker. Widespread.
Fomes applanatus (Pers. ex Fr.) Gill., white butt & heart rot. Widespread.
F. igniarius (L. ex Fr.) Kickx, white heart rot. Widespread.
Graphium rubrum Rumbold, pink wood stain. Central & Southern States.
Marssonina populi (Lib.) Magn., leaf spot. Eastern & Central States.
Melampsora abietis-canadensis (Farl.) Ludwig, leaf rust (II,III). Ind.
M. medusae Thüm., leaf rust (II,III). General.
M. occidentalis Jacks., leaf rust (II,III). Idaho.
Melanconis occulta (Fckl.) Sacc., on branches. Mich.
Mycosphaerella macularis (Fr.) Schroet., on leaves. Kans.
M. populifolia (Cke.) House. S. Car.
M. populorum Thompson (Septoria musiva Pk.), leaf spot. Vt. to Ga., Texas & Wis.
Nectria sp., canker. Minn., N. Dak.
Phoradendron flavescens (Pursh) Nutt. var. macrophyllum Engelm., mistletoe. Ariz., N. Mex.
Phyllosticta intermixta Seaver, leaf spot. Kans., Mo., Nebr., Wis. (Associated with Septoria populi Desm.)
P. maculans Ell. & Ev., Kans.
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.

POPULUS -- Continued.

Physalospora obtusa (Schw.) Cke., on branches. Kans.
Pleurotus ostreatus Jacq. ex Fr., sapwood rot. N.Dak., Wyo.
Polyporus spp. (especially P. adustus Willd. ex Fr., P. dryophilus Berk. & P. hirsutus Wulf. ex Fr.), wound rot, white heart rot. Widespread.
Sclerotinia bifrons Seaver & Shope, ink spot. Colo.
(Septoria musiva Pk.): Mycosphaerella populorum.
S. populi Desm., leaf spot. Ark.
Taphrina aurea Pers. ex Fr., yellow leaf blister. S. Car.
T. johansonii Sadeb., catkin deformity. Vt.
Trametes hispida Bagl., wound rot, heart rot. Occasional.
Uncinula salicis DC. ex Wint., powdery mildew. Widespread.
Valsa nivea Hoffm. ex Fr. and V. sordida Nit., on twigs & branches, sometimes causing canker & dieback. Widespread.

(POPULUS DILATATA Ait.): P. NIGRA ITALICA.
POPULUS FREMONTII S. Wats., under P. SARGENTII

POPULUS GRANDIDENTATA Michx. BIGTOOTH ASPEN. Small to large tree of Growth Regions 21, 22, 23, 25, 26, 27, 28; cult. Zone III.

Didymosphaeria populina Vuill. (Napicladium tremulae (Frank) Sacc.), shoot blight. Wis.
Diplodia populi Fckl., twig blight. Pa.
Fomes applanatus (Pers. ex Fr.) Gill., butt rot, white heart rot. N. E. to Great Lakes States.
F. igniarius (L. ex Fr.) Kickx, white heart rot. N.E. to Great Lakes States.
F. piniccla (Sw. ex Fr.) Cke., brown cubical heart rot. N.Y., Vt.
Hypoxylon pruinatum (Klotzsch) Cke., trunk canker. Me. to Minn.
Macrophoma tumefaciens Shear, bark canker. Minn.
Marssonina castagnei (Desm. & Mont.) Magn., leaf spot. N.Y., Wis.
M. rhabdospora (Ell. & Ev.) Magn., leaf spot. N.J., N.Y., Pa., Wis. (Doubtful if a Marssonina).
Melampsora abietis-canadensis (Farl.) Ludwig, leaf rust (II,III). N.E. States to Mich. & Wis.
Mycosphaerella orbicularis (Pk.) House, on leaves. N.Y.
M. populorum Thompson (Septoria musiva Pk.), leaf spot. Ind., N.Y., Wis.
Nectria sp., canker. N.E. States.
Phyllosticta maculans Ell. & Ev., leaf spot. N.Y.
Polyporus spp. (especially P. adustus Willd. ex Fr. and P. dryophilus Berk.), heart rot. N.E. and Great Lakes States.
Stigmina populi (Ell. & Ev.) Pk., leaf spot. Del.
Taphrina aurea Pers. ex Fr., yellow leaf blister. Mass.
T. johansonii Sadeb., catkin deformity. N.Y., Wis.
Uncinula salicis DC. ex Wint., powdery mildew. Widespread.
Valsa nivea Hoffm. ex Fr. and V. sordida Nit., twig canker, dieback. Occasional.

POPULUS HETEROPHYLLA L., under P. DELTOIDES.

POPULUS -- Continued.

POPULUS NIGRA L., BLACK POPLAR. Tree of Europe & W. Asia, cult. Zone II. The var. ITALICA Muenchh., LOMBARDY POPLAR, in Zone II and var. BETULIFOLIA (Pursh) Torr. in Zone IV are the most familiar representatives.

Botryosphaeria ribis (Tode ex Fr.) Gross. & Dug., on branches, ? canker. Ga.
Cercospora populina Ell. & Ev., leaf spot. Ala., Fla.
Didymosphaeria populina Vuill., leaf spot. Ky.
Dothichiza populea Sacc. & Briard, branch & trunk canker. Eastern & Central States. (Especially on Lombardy poplar.)
Marssonina spp., leaf spot. Ind., N. Car.
Melampsora abietis-canadensis (Farl.) Ludwig, leaf rust (II,III).
M. medusae Thüm., leaf rust (II,III) Mass., Mo., Pa.
M. occidentalis Jacks., leaf rust (II,III), Calif.
Melanconium hyalinum Ell. on dead branches, Iowa.
Mycosphaerella populorum Thompson, leaf spot. Ga., N.Y.
Pezizella oenotherae (Cke. & Ell.) Sacc., on leaves. Va.
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.
Polyporus farlowii Lloyd, heart rot. Ariz., N.Mex.
Sclerotinia whetzelii Seaver, ink spot. Mass.
Taphrina aurea Pers. ex Fr., yellow leaf blister. Conn., West Va., Wis., Pacific Coast States.
Valsa nivea Hoffm. ex Fr. and V. sordida Nit., on twigs & branches, occasionally causing canker. Widespread.

POPULUS SARGENTII Dode (P. occidentalis (Rydb.) Britt.), PLAINS COTTONWOOD. Large tree of the Western Plains and Rocky Mountains. Including several related spp. as P. ARIZONICA Sarg., P. FREMONTII S. Wats. and P. WISLIZENI (S.Wats.) Sarg., extending to the Pacific Coast and Southwest.

Fomes applanatus (Pers. ex Fr.) Gill., root & butt rot. Rocky Mt. States.
Marssonina populi (Lib.) Magn., leaf spot. Calif.
Melampsora abietis-canadensis (Farl.) Ludwig, leaf rust (II,III). Iowa to Colo. & Mont.
M. albertensis Arth., leaf rust (II,III). Colo., Mont.
M. medusae Thüm., leaf rust (II,III). Iowa & S.Dak. to N. Mex.
M. occidentalis Jacks., leaf rust (II,III). Calif.
Mycosphaerella populorum Thompson, leaf spot. Calif., Utah.
Myxosporium alboluteum Dearn. & Barth., on twigs. Kans.
Phoradendron flavescens macrophyllum Engelm., mistletoe. Ariz., N.Mex.
Taphrina aurea Pers. ex Fr., yellow leaf blister. Calif.
T. johansonii Sadeb., catkin deformity.
Valsa sordida Nit. (Cytospora chrysosperma Pers. ex Fr.), canker, dieback. Widespread.

POPULUS -- Continued.

POPULUS TACAMAHACA Mill. (P. balsamifera Muenchh.), BALSAM POPLAR. Large tree of Growth Regions 12, 13, 15, 18, 21, 23, 24, 26, 27; cult., Zone II. Including P. CANDICANS Ait., BALM-OF-GILEAD POPLAR, an exotic cult. in Zone IV, and also several Western spp. of the balsam poplar group as P. ACUMINATA Rydb., P. ANGUSTIFOLIA James and P. TRICHOCARPA Torr. & Gray, BLACK COTTONWOOD, of the Rocky Mountains and Pacific Coast.

Didymosphaeria populina Vuill., shoot blight. Wis.
Fomes annosus (Fr.) Cke., root & butt rot. Mont.
F. applanatus (Pers. ex Fr.) Gill., butt & heart rot. Widespread.
F. connatus (Weinm. ex Fr.) Gill., butt & heart rot. N.E. States.
F. igniarius (L. ex Fr.) Kickx, white heart rot. Widespread.
Hypoxylon pruinatum (Klotzsch) Cke., trunk canker. Me. to Pa. & Mich.
Linospora tetraspora Thompson, leaf blight. Alaska.
Marssonina spp. (M. brunnea (Ell. & Ev.) Magn., M. castagnei (Desm. & Mont.) Magn., M. populi (Lib.) Magn.), leaf spot. Widespread.
Melampsora abietis-canadensis (Farl.) Ludwig, leaf rust (II,III). N.E. States to Wis.
M. albertensis Arth., leaf rust (II,III). Mont. to Colo., Calif. & Alaska.
M. medusae Thüm., leaf rust (II,III). N.E. States to Iowa & Minn.
M. occidentalis Jacks., leaf rust (II,III). Wis. to Calif. & Wash.
Mycosphaerella populicola Thompson, leaf spot. Vt. to Mich.; Idaho, Nebr. On P. tacamahaca and P. trichocarpa.
M. populifolia (Cke.) House, on leaves. N.Y.
M. populorum Thompson, leaf spot. Widespread.
Phoradendron flavescens var. macrophyllum Engelm., mistletoe. Ariz., N.Mex.
Phyllosticta brunnea (Dearn. & House) Dearn. & Barth., leaf spot. Colo., Wis.
P. intermixta Seaver, on leaves. N.Car.
Sclerotinia bifrons Seaver & Shope, ink spot. Colo.
Trametes spp. (especially T. hispida Bagl. and T. suaveolens Fr.), wood rot sometimes of living trees. Widespread.
Uncinula salicis DC. ex Wint., powdery mildew. Widespread.
Valsa nivea Hoffm. ex Fr. and V. sordida Nit., twig & branch canker. Widespread.
Xylaria digitata (L. ex Fr.) Grev., root rot. Idaho.

POPULUS TREMULOIDES Michx., QUAKING ASPEN. Small to large tree occurring throughout the northern half of the U.S., especially in the Great Lakes and Northern Plains regions; including the var. AUREA (Tidestr.) Daniels, GOLDEN ASPEN, the typical Rocky Mt. form.

Cladosporium subsessile Ell. & Barth., leaf spot. Colo., Utah, Wis.

POPULUS -- Continued.

Coniophora puteana Schum. ex Fr., timber rot. Cosmopolitan.
(Cytospora chrysosperma Pers. ex Fr.): Valsa sordida.
(C. nivea Hoffm. ex Sacc.): Valsa nivea.
Didymosphaeria populina Vuill. (Napicladium tremulae (Frank) Sacc., shoot blight. N.E. States to Minn., Oregon, Wash.
Dothiora polyspora Shear & Davidson, on twigs, ? canker. Colo.
Erysiphe cichoracearum DC., powdery mildew. Utah.
Fomes applanatus (Pers. ex Fr.) Gill., butt rot, heart rot. Widespread.
F. connatus (Weimm. ex Fr.) Gill., white heart rot. N.E. States.
F. igniarius (L. ex Fr.) Kickx, white heart rot (common after fire injury). General.
F. fomentarius (L. ex Fr.) Kickx, heart rot. Occasional.
F. pinicola (Sw. ex Fr.) Cke., brown cubical rot. Occasional.
Hypoxylon pruinatum (Klotzsch) Cke., trunk canker. N.E. and Great Lakes States.
Macrophoma tumefaciens Shear, bark canker. Minn.
Marssonina spp. (M. brunnea (Ell. & Ev.) Magn., M. castagnei (Desm. & Mont.) Magn., M. populi (Lib.) Magn.), leaf spot. Widespread.
Melampsora abietis-canadensis (Farl.) Ludwig, leaf rust (II,III). New England to Ind.
M. albertensis Arth., leaf rust (II,III). Mont. to N. Mex., Calif. & Alaska.
M. medusae Thüm., leaf rust (II,III). Widespread, especially in the Northeast.
Mycosphaerella populorum Thompson (Septoria musiva Pk.), leaf spot. N.J., N.Y., Ohio, Wis.
Myriocoenium comitatum Davis, on leaves, associated with Sclerotium bifrons (spermatial stage ?). Wis.
(Napicladium tremulae (Frank) Sacc.): Didymosphaeria populina.
Nectria sp. and N. galligena Bres., canker. Mich., Minn., N.H.
Pezicula eximia Rehm, on branches. N.Y.
Phyllosticta maculans Ell. & Ev., leaf spot. N.Y.
Polyporus adustus Willd. ex Fr., white spongy rot. Widespread.
P. dryophilus Berk., white mottled heart rot. Widespread.
Sclerotinia bifrons Seaver & Snope (Sclerotium bifrons Ell. & Ev.), ink spot. Colo. & Wyo. to Oregon & Wash.
S. wheizelii Seaver (S. bifrons Whetzel), ink spot. Minn., N.Y., Vt., Wis. (There appear to be 2 forms of this leaf spot fungus distributed respectively in the Rocky Mts. and in the East; both have been reported as Sclerotium bifrons. The separation here is based on distribution rather than critical identification.)
Septogloeum rhopaloideum Dearn. & Bisby, leaf spot. Wyo.
(Septoria musiva Pk.): Mycosphaerella populorum.
Stigmina populi (Ell. & Ev.) Pk., leaf spot. Mont., N.Y., S.Dak.
Taphrina aurea Pers. ex Fr., yellow leaf blister. N.E. States.
T. johansonii Sadeb., catkin deformity. Widespread.
Trametes hispida Bagl., timber rot, sometimes wound or heart rot. Widespread.

POPULUS -- Continued.

Uncinula salicis DC. ex Wint., powdery mildew. Widespread.
Valsa nivea Hoffm. ex Fr. (Cytospora nivea Hoffm. ex Sacc.) and V. sordida Nit. (C. chrysosperma Pers. ex Fr.), on twigs & branches, sometimes canker. Widespread.

POPULUS TRICHOCARPA Torr. & Gray, under P. TACAMAHACA
POPULUS WISLIZENII (S.Wats.) Sarg., under P. SARGENTII.

PROSOPIS (LEGUMINOSAE)

PROSOPIS spp., MESQUITE. Spiny shrubs or small trees of Growth Regions 9,11,16,17,19,20,25,29,30, valuable for forage and honey. The common mesquite, P. CHILENSIS (Mol.) Stuntz. (P. juliflora (Swartz) DC., P. glandulosa Torr.) occurs in a variety of forms often designated as spp. P. CINERASCENS Gray and P. PUBESCENS Benth., SCREWBEAN, of G.R.'s 9,10, 11,17, are included.

Cercospora prosopidis Heald & Wolf, leaf blight. Texas.
Didymosphaeria cytosphaericola Rehm, on branches. Texas.
Fomes everhartii (Ell. & Gall.) Schrenk., and F. rimosus (Berk.) Cke., white heart rot. Ariz., Texas.
Gloeosporium lejunimum (Cke.) Sacc., pod spot. Texas.
Napicladium prosopodium Thaxt., leaf spot. Texas.
Phoma sp., black pod spot. T.H.
Phoradendron californicum Nutt. and P. flavescens var. macrophyllum Engelm., mistletoe. Texas to Calif.
Phyllosticta juliflora Ell. & Barth., leaf & pod spot. Texas.
Phymatotrichum omnivorum (Shear) Dug., root rot. Texas.
Physalospora mutila (Fr.) M.E. Stevens, on branches. T.H.
Phytomonas tumefaciens (EFS. & Town.) Bergey, ? branch & trunk galls. Texas.
Polyporus texanus (Murr.) Sacc. & Trott., mottled white heart rot. Texas
Ravenelia arizonica Ell. & Ev., leaf rust (II,III), sometimes galls. Texas to Calif.
R. holwayi Diet., leaf rust (O,I,II,III), sometimes galls. Texas to Calif.
Schizophyllum commune Fr., heart rot. Texas.
Sclerophycnium aureum Heald & Lewis, leaf blight. Ariz., Texas.
Sphaeropsis prosopodis Doarn. & Barth., on branches. Texas.
Uncinula prosopodis Speg., powdery mildew. Texas.
(DIVISION OF MYCOLOGY AND DISEASE SURVEY).

PEANUT DISEASES IN CERTAIN TEXAS COUNTIES IN 1941, WITH NOTES ON OCCURRENCE OF PEANUT RUST

Glenn KenKnight

Excessive rainfall in South Texas throughout the spring months caused considerable damage to peanuts. Many fields of early peanuts were replanted because of poor stand due to drowning, erosion, and a seedling blight (apparently due to a species of Fusarium) which caused a rotting of the tap roots. With the abrupt change from excessive soil moisture to dry conditions in Wilson County beginning June 17, the appearance of peanut fields improved rapidly. However, peanut yields were generally well below average.

Observations were made on diseases of peanuts in experimental plots and commercial fields throughout the season. In addition, surveys of diseases of mature Spanish peanuts were made in 19 fields in Wilson County August 22, 8 fields in Wilson County and 11 in Atascosa County September 4, and 7 fields of mostly immature peanuts in Frio County October 28.

"Pouts" of peanut seedlings due to thrips was conspicuous in one experimental field in Wilson County in June but the trouble did not seem to be general and the peanuts apparently recovered fully.

Peanut leaf spot due primarily, if not wholly, to Cercospora personata did comparatively little damage in any of the three counties mentioned. The disease was conspicuous and caused slight to moderate defoliation in 5 of the 37 fields surveyed, whereas in 19 of the fields leaf spot lesions were rare.

Southern blight (Sclerotium rolfsii) was found in 11 of 19 fields in Wilson County and caused losses in yield estimated at 12%, 10%, 10%, 5%, 5%, 4%, 2%, 2%, 1%, trace, and trace in the respective fields. In Atascosa County southern blight was found in only three of 11 fields and caused losses in yield estimated at 25%, 2%, and trace. In Frio County the disease was found in one of 7 fields. In that instance most of the peanuts had been picked but the disease had obviously caused serious loss.

In one experimental field in Wilson County southern blight caused a reduction in yield of at least 50%. In contrast to observations in 1940, death of immature plants as a result of the disease was common, amounting to as much as 10% in some rows, and sclerotia of the causal fungus were abundant on the roots and pods of diseased plants both in the experimental field and in all other fields where the disease was observed. In a 1/8-acre garden plot of Jumbo Runner peanuts, following a spring crop of Pinto beans, approximately 10% of the plants were dead as a result of southern blight when observed on November 3.

Rust (Puccinia arachidis) appeared on several peanut selections in an experimental field in Wilson County early in October. On October 28 the disease was found on all of 7 fields of Spanish peanuts in Frio County, but was causing appreciable damage in only one field from which it appeared to have spread to the others. This one field of about 20 acres of peanuts following a spring crop of watermelons was rather uniformly and severely rusted so that the leaves had a scorched appearance. Apparently these are the first recorded occurrences of rust on peanuts in Texas.

As a result of artificial as well as natural inoculation under field conditions, at least a few lesions of rust were found on plants of 50 varieties and selections (all that were thoroughly inoculated) of peanuts. Runner varieties appeared most susceptible, perhaps because for the most part they were greener when inoculated. The selections with varietal names that rusted are: Basse, Carolina Runner, Dixie Giant, Gudayitham, Japanese, Jumbo Runner, Macspan, Mauritius, Nagpur Groundnut No. 34, Pearl, Senegal, Small Spanish, Spanish, Tennessee Red, Virginia Bunch (Florence strain), and West African.
(TEXAS AGRICULTURAL EXPERIMENT STATION, STOCKDALE, TEXAS).

BRIEF NOTES ON PLANT DISEASES

AN ISOLATED CASE OF BLACK SHANK ON TOBACCO IN KENTUCKY: On August 11, 1941, County Agent Nelson at Hodgenville, Kentucky, requested that I look at a few dying cigar tobacco plants. They appeared to have typical black shank and isolations from them yielded a Phytophthora identical in mycelial characteristics with the black-shank organism isolated in known outbreaks of this disease. Tests of the pathogenicity of this Phytophthora, in comparison with the black-shank organism [P. parasitica var. nicotianae], were made by Dr. B. M. Johnson, by inoculating 2-inch lengths of fresh Turkish tobacco stems put into large test tubes with a small amount of water. The black-shank Phytophthora rotted the stems quickly but the Hodgenville fungus caused very slow decay about the point of inoculation, indicating a definite difference between the 2 organisms.

The diseased cigar tobacco plants were growing within about 9 feet of, and down a slope from, a row of year-old seedling rhubarb plants, all but one of which had died from crown rot just previous to the time of infection of the tobacco plants. A phytophthora crown rot of rhubarb, especially of seedlings, is common in Kentucky. The supposition is that the rhubarb Phytophthora, in this instance, was the cause of the disease in tobacco. (W. D. Valleau, Kentucky Agricultural Experiment Station).

BLACK CANKER OF WILLOW IN WEST VIRGINIA: Black canker of willow has been found in West Virginia. Physalospora miyabeana has been isolated from the affected tissues and both the perfect and imperfect stages were observed fruiting on the cankers. It is known that the disease has been present since 1939, but it was not definitely identified before the summer of 1941. The willow scab fungus was not found associated with the canker, although developing cankers were not observed during the early part of the summer. The disease was found on two weeping willows planted on the border of a fish pond near Thomas, West Virginia, Tucker County. The owner states that the trees were bought from a nursery, but he has been unable to determine from which nursery they were purchased. A more detailed study as it occurs in the State will be made next year. We believe that this is the first time that the disease has been reported from West Virginia. (J. G. Leach and J. A. Rupert, West Virginia University).

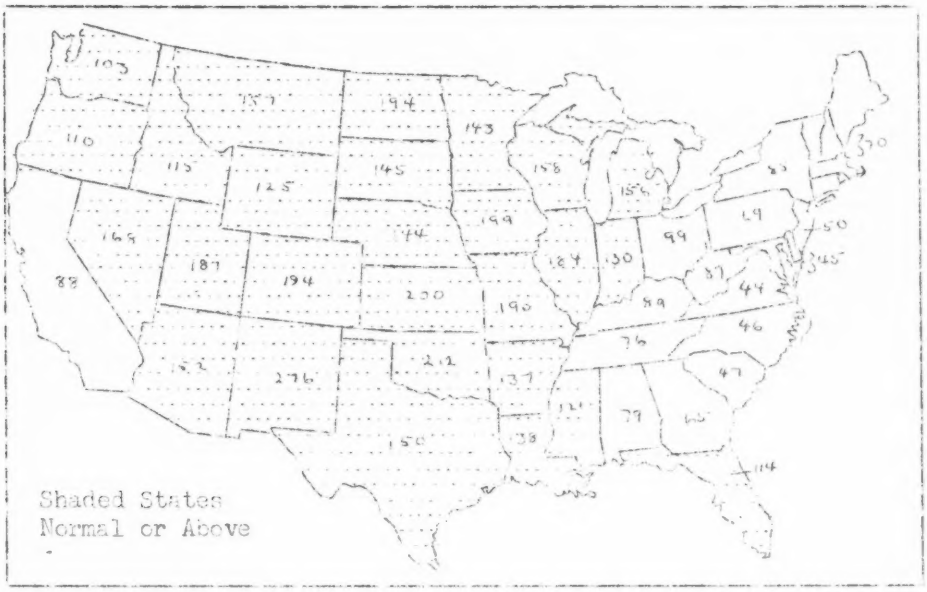

Fig. 1.- Percentage of Normal Precipitation for the Fall (September, October, November), 1941.

THE FALL OF 1941

(U. S. Department of Commerce, Weather Bureau, Weekly Weather and Crop Bulletin for week ending December 9, 1941).

The fall season was outstandingly warm and generally wet, except in the eastern drought area. Figure 1 shows the percentage of normal rainfall for the season as a whole. Notwithstanding the relative dryness in November in much of the interior, the preceding 2 months had been so extremely wet that the total rainfall for the season as a whole was much above normal everywhere from the Lake region and Mississippi Valley westward to the Great Basin; some States had more than twice the normal for the 3 months. It was the wettest fall of record in Michigan, Iowa, Missouri, Kansas, and New Mexico, and the second wettest in Oklahoma. Kansas had approximately one-fourth more rainfall and New Mexico in excess of 40 percent more than occurred in the previous wettest fall of record.

On the other hand, in the more eastern States severe drought prevailed throughout the period. Virginia had the driest fall of record, with 3.72 inches, or only 44 percent of normal rainfall for the 3 months. Maryland, North Carolina, and South Carolina all had less than half the normal; it was the second driest fall of record in Maryland and North Carolina. With regard to this year's rainfall in the East, both the winter and spring were decidedly dry. The summer season had somewhat more than normal rainfall, but this was followed by an extremely dry fall.

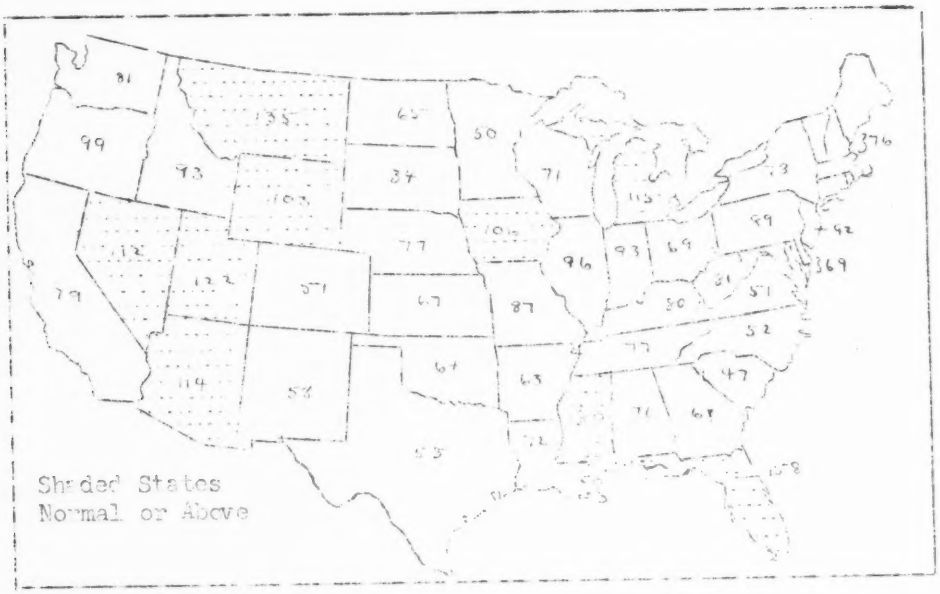

Fig. 2.--Percentage of Normal Precipitation for November 1941.

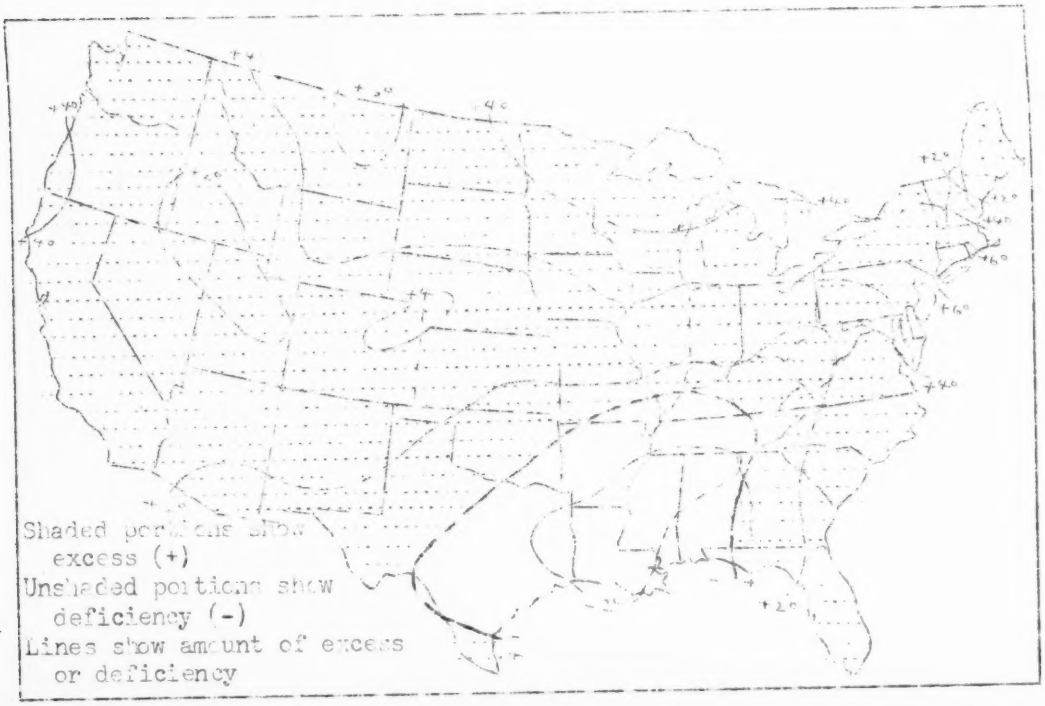

Fig. 3.--Departure of Mean Temperature from the Normal for November 1941.

NOVEMBER WEATHER

(U. S. Department of Commerce, Weather Bureau, Weekly Weather and Crop Bulletin for week ending December 9, 1941).

The weather of November 1941 was relatively warm and dry in most sections of the country. The mean monthly temperatures were below normal in most south-central sections from Kentucky, Tennessee, and western Georgia westward to southeastern Kansas, Oklahoma, and Texas; the deficiencies, however, were small, mostly 1° to 3° on a monthly average basis. All other areas had above-normal warmth with plus anomalies generally from 3° to 5° or 6° throughout the northern half of the country--see Fig. 3.

In the interior of the country, following a long period of excessive rainfall, November was relatively dry. From the Great Plains eastward all States had below-normal rainfall, except Florida, Mississippi, Iowa, and Michigan. However, in some of the more western States, particularly Arizona and Utah, abnormally heavy rains again occurred, making the third successive wet month. In the more eastern States where both September and October were extremely dry, November maintained the pattern with much below normal rainfall. The monthly totals were only about half the normal in Virginia and the Carolinas--see Figure 2.